QCT
S2B-D51B

IPMI Commands

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REVISIONS

Version	Date	Description	Authors
0.1	08/29/2016	First publish	Claire Chiang

1. BMC IP Setting

Type	Command Format	Description
In Band	ipmitool lan print	check lan info
	ipmitool lan set <*channel_no*> ipaddr xxx.xxx.xxx.xxx	set ip address
	ipmitool lan set <*channel_no*> netmask xxx.xxx.xxx.xxx	set net mask address
	ipmitool lan set <*channel_no*> defgw ipaddr xxx.xxx.xxx.xxx	set gateway address
Out Band	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> lan print	check lan info
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> lan set <*channel_no*> ipaddr xxx.xxx.xxx.xxx	set ip address
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> lan set <*channel_no*> netmask xxx.xxx.xxx.xxx	set net mask address
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> lan set <*channel_no*> defgw ipaddr xxx.xxx.xxx.xxx	set gateway address

2. BMC DHCP / Dedicated Setting

Type	Command Format	Description
In Band	ipmitool lan set <*channel_no*> ipsrc static	Set BMC IP to static mode
	ipmitool lan set <*channel_no*> ipsrc dhcp	Set BMC IP to DHCP mode
Out Band	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> lan set <*channel_no*> ipsrc static	Set BMC IP to static mode
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> lan set <*channel_no*> ipsrc dhcp	Set BMC IP to DHCP mode

3. BMC Dedicated / Shared NIC Setting

Type	Command Format	Description
In Band	ipmitool raw 0x0c 0x01 0x01 0xff 0x00	Dedicated NIC
	ipmitool raw 0x0c 0x01 0x01 0xff 0x01	LOM Shared NIC
	ipmitool raw 0x0c 0x01 0x01 0xff 0x02	OCP Mezzanine Shared NIC

	ipmitool raw 0x0c 0x01 0x01 0xff 0x03	QCT Mezzanine Shared NIC
	ipmitool raw 0xc 0x2 0x1 0xff 0x0 0x0 Feedback : 11 00	Get BMC LAN selection
Out Band	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xff 0x00	Dedicated NIC
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xff 0x01	LOM Shared NIC
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xff 0x02	OCP Mezzanine Shared NIC
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xff 0x03	QCT Mezzanine Shared NIC
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xc 0x2 0x1 0xff 0x0 0x0 Feedback : 11 00	Get BMC LAN selection

Return: <complete code> <LAN Card Type>
For LAN Card Type,
0h- BMC Dedicated
2h- Shared NIC (OCP Mezzanine slot)
3h- Shared NIC (QCT Mezzanine slot)

4. Event Logs

Type	Command Format	Description
In Band	ipmitool sel list	check all event logs
	ipmitool sel clear	clean all event logs
Out Band	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* sel list	check all event logs
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* sel clear	clean all event logs

5. System Information

Type	Command Format	Description
In Band	ipmitool fru list	check system info
Out Band	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* fru list	check system info

6. LAN MAC Address

Type	Command Format	Description
In Band	Go to check system LAN information	
Out Band	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> raw 0x30 0x19 0x00 0x01	Check MAC 0
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> raw 0x30 0x19 0x00 0x11	Check MAC 1
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> raw 0x30 0x19 0x03 0x02	Check OCP MAC 0
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> raw 0x30 0x19 0x03 0x12	Check OCP MAC 1

If it returns “0x00 0x2 0x8 0x9e 0x01 0x9 0xcd 0xaa”
0x8 0x9e 0x01 0x93 0xcd 0xaa means MAC address. It is 08:9E:01:93:CD:AA

7. Power On / Off / Reset the system

Type	0x0Command Format	Description
In Band	ipmitool power status	check power status
	ipmitool power off	system power off
	ipmitool power on	system power on
	ipmitool power reset	system power reset
Out Band	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> power status	check power status
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> power off	system power off
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> power on	system power on
	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> power reset	system power reset

8. Reset BMC

Type	Command Format	Description
In Band	ipmitool mc reset cold	Reset BMC
Out Band	ipmitool -I lan -H <*BMC IP*> -U <*username*> -P <*password*> mc reset cold	Reset BMC

9. List Monitor Sensors

Type	Command Format	Description

In Band	ipmitool sdr list	All sensors list
	ipmitool sdr type Temperature	Temperature sensors
	ipmitool sdr type Voltage	Voltage sensors
	ipmitool sdr type Fan	Fan sensors
Out Band	ipmitool -H *<BMC IP>* -U *<username>* -P *<password>* sdr list	All sensors list
	ipmitool -H *<BMC IP>* -U *<username>* -P *<password>* sdr type Temperature	Temperature sensors
	ipmitool -H *<BMC IP>* -U *<username>* -P *<password>* sdr type Voltage	Voltage sensors
	ipmitool -H *<BMC IP>* -U *<username>* -P *<password>* sdr type Fan	Fan sensors

10. CPLD Information

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x17 0x03	Get CPLD FW
	ipmitool raw 0x30 0x17 0x01	Get CPLD checksum
	ipmitool raw 0x30 0x17 0x02	Get CPLD IDCODE
Out Band	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x17 0x03	Get CPLD FW
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x17 0x01	Get CPLD checksum
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x17 0x02	Get CPLD IDCODE

11. Boot order

Type	Command Format	Description
In Band	ipmitool chassis bootdev pxe	**legacy boot** with PXE first
	ipmitool chassis bootdev pxe options=efiboot	**UEFI boot** with PXE first.
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* chassis bootdev pxe	**legacy boot** with PXE first
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* chassis bootdev pxe options=efiboot	**UEFI boot** with PXE first

Cancel 60 seconds timeout: Check **1.23 Setting BMC boot flag valid bit clearing**

12. HDD Device Boot

Type	Command Format	Description
In Band	ipmitool raw 0x0 0x8 0x5 0x80 0x0 0x0 0x0 0x0	**legacy boot** with HDD device (take effect only once)
	ipmitool raw 0x0 0x8 0x5 0xc0 0x0 0x0 0x0 0x0	**legacy boot** with HDD device (take effect forever)
	ipmitool raw 0x0 0x8 0x5 0xa0 0x0 0x0 0x0 0x0	**UEFI boot** with HDD device (take effect only once)
	ipmitool raw 0x0 0x8 0x5 0xe0 0x0 0x0 0x0 0x0	**UEFI boot** with HDD device (take effect only forever)
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x8 0x5 0x80 0x0 0x0 0x0 0x0	**legacy boot** with HDD device (take effect only once)
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x8 0x5 0xc0 0x0 0x0 0x0 0x0	**legacy boot** with HDD device (take effect forever)
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x8 0x5 0xa0 0x0 0x0 0x0 0x0	**UEFI boot** with HDD device (take effect only once)
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x8 0x5 0xe0 0x0 0x0 0x0 0x0	**UEFI boot** with HDD device (take effect only forever)

13. BIOS Boot Mode

Type	Command Format	Description
In Band	ipmitool chassis bootdev none options=efiboot	BIOS with **EFI mode**
	ipmitool chassis bootdev none	BIOS with **Legacy mode**
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* chassis bootdev none options=efiboot	BIOS with **EFI mode**
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* chassis bootdev none	BIOS with **Legacy mode**

14. Serial Over LAN

Type	Command Format	Description
In Band	ipmitool sol set enabled false	**Disable** Serial over LAN
	ipmitool sol set enabled true	**Enable** Serial over LAN
	ipmitool sol activate	Start SOL
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* sol set enabled false	**Disable** Serial over LAN
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* sol set enabled true	**Enable** Serial over LAN
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* sol activate	Start SOL

15. BMC Web Service

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x69 0x1 0x00 0x0 0x0	Get Web server status
	ipmitool raw 0x32 0x6a 0x1 0x00 0x00 0x00 **0x00** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x50 0x00 0x00 0x00 0xbb 0x01 0x00 0x00 0x8 0x7 0x00 0x00 0x00 0x00	**Disable** BMC Web service
	ipmitool raw 0x32 0x6a 0x1 0x00 0x00 0x00 **0x01** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x50 0x00 0x00 0x00 0xbb 0x01 0x00 0x00 0x8 0x7 0x00 0x00 0x00 0x00	**Enable** BMC Web service
Out Band	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x69 0x1 0x00 0x0 0x0	Get Web server status
	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x1 0x00 0x00 0x00 **0x00** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x50 0x00 0x00 0x00 0xbb 0x01 0x00 0x00 0x8 0x7 0x00 0x00 0x00 0x00	**Disable** BMC Web service
	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x1 0x00 0x00 0x00 **0x01** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x50 0x00 0x00 0x00 0xbb 0x01 0x00 0x00 0x8 0x7 0x00 0x00 0x00 0x00	**Enable** BMC Web service

16. SMASH

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x6a 0x20 0x00 0x00 0x00 **0x00** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00	**Disable** ssh server

	0xff 0xff 0xff 0xff 0x16 0x00 0x00 0x00 0x8 0x7 0x00 0x00 0xff 0xff 0xff	(redirect to SMASH)
	ipmitool raw 0x32 0x6a 0x20 0x00 0x00 0x00 **0x01** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0xff 0xff 0xff 0xff 0x16 0x00 0x00 0x00 0x8 0x7 0x00 0x00 0xff 0xff 0xff	**Enable** ssh server (redirect to SMASH)
Out Band	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x20 0x00 0x00 0x00 **0x00** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0xff 0xff 0xff 0xff 0x16 0x00 0x00 0x00 0x8 0x7 0x00 0x00 0xff 0xff 0xff	**Disable** ssh server (redirect to SMASH)
	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x20 0x00 0x00 0x00 **0x01** 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0xff 0xff 0xff 0xff 0x16 0x00 0x00 0x00 0x8 0x7 0x00 0x00 0xff 0xff 0xff	**Enable** ssh server (redirect to SMASH)

0x20 0x00 0x0 0x0: SSH service
0x00: Service is disabled
0x01: Service is enabled
0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00: the string is “bond0”
0xff 0xff 0xff 0xff: Rerseved
0x16 0x00 0x00 0x00: Security access port is 22
0x08 0x07 0x00 0x00: Session inactivity timeout value is read-only.
0xff 0xff 0xff: Rerseved.

17. Change PW of SMASH root user

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x91 0x2 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30	the password must be less than 64 bytes and bigger than 8 bytes.
Out Band	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x91 0x2 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30	the password must be less than 64 bytes and bigger than 8 bytes.

0x32 => net-function
0x91 => this command ID is to change the password of Smash.
0x02 => set password
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 => it is a password data.

18. BMC IPV6 Function Setting_OEM (0xC3)

Type	Command Format	Description
In Band	ipmitool raw 0x0c 0x01 0x01 0xc3 **0x01** Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	Set IPv6 function enable
	ipmitool raw 0x0c 0x01 0x01 0xc3 **0x00**	Set IPv6 function

	Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	disable
Out Band	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xc3 **0x01** Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	Set IPv6 function enable
	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xc3 **0x00** Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	Set IPv6 function disable

19. BMC IPV6 IP DHCP / Dedicated Setting_OEM (0xC4)

Type	Command Format	Description
In Band	ipmitool raw 0x0c 0x01 0x01 0xc4 **0x01** Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	Set BMC IPV6 to static mode
	ipmitool raw 0x0c 0x01 0x01 0xc4 **0x02** Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	Set BMC IPV6 to DHCP mode
Out Band	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xc4 **0x01** Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	Set BMC IPV6 to static mode
	Ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0c 0x01 0x01 0xc4 **0x02** Feedback : ipmitool raw 0x0c 0x02 0x01 0xc3 0x00 0x00	Set BMC IPV6 to DHCP mode

20. BMC IPV6 Setting

Type	Command Format	Description
In Band	ipmitool raw 0x0c 0x01 0x01 **0xc5** *<BMC IP>* Feedback : ipmitool raw 0x0c 0x02 0x01 0xc5 0x00 0x00	Set IPV6 address
	ipmitool raw 0x0c 0x01 0x01 **0xc7** < gateway address> ipmitool raw 0x0c 0x02 0x01 0xc7 0x00 0x00	Set gateway address
Out Band	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* lan set *<channel_no>* raw 0x0c 0x01 0x01 **0xc5** *<BMC IP>* Feedback : ipmitool raw 0x0c 0x02 0x01 0xc5 0x00 0x00	Set IPV6 address
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* lan set *<channel_no>* aw 0x0c 0x01 0x01 **0xc7** < gateway address>	set gateway address

	Feedback : ipmitool raw 0x0c 0x02 0x01 0xc7 0x00 0x00	

21. Power Mode Setting

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xc4 0x02 0x1	Enable cold redundancy mode.
	ipmitool raw 0x30 0xc4 0x02 0x0	Disable cold redundancy mode.
	ipmitool raw 0x30 0xc4 0x01 0x0	Enable one power supply
	ipmitool raw 0x30 0xc4 0x02 0x0	Enable two power supplies
	ipmitool raw 0x30 0xc3 Feedback : 02 00 00 00	Get power supply configuration
Out Band	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xc4 0x02 0x1	Enable cold redundancy mode.
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xc4 0x02 0x0	Disable cold redundancy mode.
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xc4 0x01 0x0	Enable one power supply
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xc4 0x02 0x0	Enable two power supplies
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xc3 Feedback : 02 00 00 00	Get power supply configuration

Byte 1 – the number of PSU devices.
Byte 2 – PSU mode
00h – Disable PSU cold redundant.
01h – Enable PSU cold redundant.
Byte 3 - 00: not support. 01: support. PSU1 support 'cold redundant' or not.
Byte 4 - 00: not support. 01: support. PSU1 support 'cold redundant' or not.

22. Power Supply Configuration

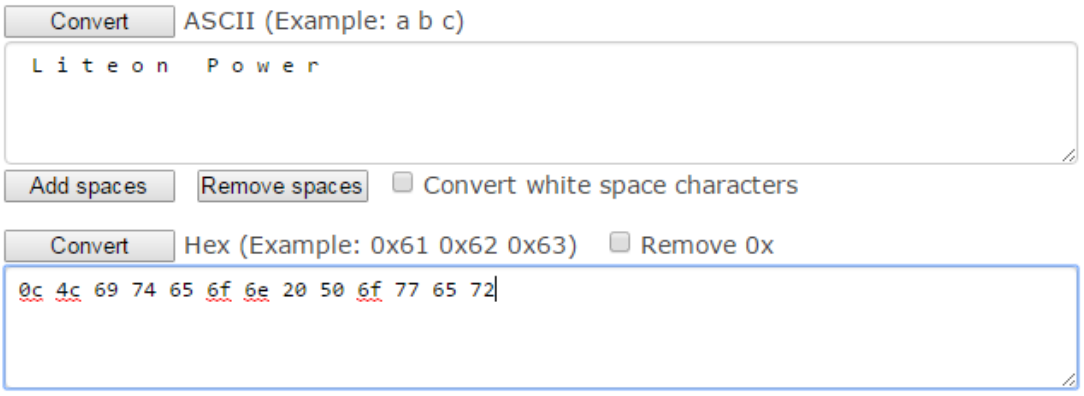
Type	Command Format	Description
In Band	ipmitool raw 0x6 0x52 0xf 0xb0 0x0d 0x99	Get PSU1 MFR_ID
	ipmitool raw 0x6 0x52 0xf 0xb2 0x0d 0x99	Get PSU2 MFR_ID

	ipmitool raw 0x6 0x52 0xf 0xb0 0x5 0x97	Get PSU1 READ_PIN
	ipmitool raw 0x6 0x52 0xf 0xb2 0x5 0x97	Get PSU2 READ_PIN
	ipmitool raw 0x6 0x52 0xf 0xb0 0x5 0x7c	Get PSU1 STATUS_INPUT
	ipmitool raw 0x6 0x52 0xf 0xb2 0x5 0x7c	Get PSU2 STATUS_INPUT
	ipmitool raw 0x6 0x52 0xf 0xb0 0x0f 0x9a	Get PSU1 MFR_MODEL
	ipmitool raw 0x6 0x52 0xf 0xb2 0x0f 0x9a	Get PSU2 MFR_MODEL
	ipmitool raw 0x6 0x52 0xf 0xb0 0x04 0x9b	Get PSU1 MFR_REVISION
	ipmitool raw 0x6 0x52 0xf 0xb2 0x04 0x9b	Get PSU2 MFR_REVISION
	ipmitool raw 0x6 0x52 0xf 0xb0 0x06 0x9c	Get PSU1 MFR_LOCATION
	ipmitool raw 0x6 0x52 0xf 0xb2 0x06 0x9c	Get PSU2 MFR_LOCATION
	ipmitool raw 0x6 0x52 0xf 0xb0 0x05 0x9d	Get PSU1 MFR_DATE
	ipmitool raw 0x6 0x52 0xf 0xb2 0x05 0x9d	Get PSU2 MFR_DATE
	ipmitool raw 0x6 0x52 0xf 0xb0 0x11 0x9e	Get PSU1 MFR_SERIAL
	ipmitool raw 0x6 0x52 0xf 0xb2 0x11 0x9e	Get PSU2 MFR_SERIAL
	ipmitool raw 0x6 0x52 0xf 0xb0 0x3 0xa7	Get PSU1 MFR_POUT_MAX
	ipmitool raw 0x6 0x52 0xf 0xb2 0x3 0xa7	Get PSU2 MFR_POUT_MAX
	ipmitool raw 0x6 0x52 0xf 0xb0 0x02 0xe0	Get PSU1 CR & off line mode
	ipmitool raw 0x6 0x52 0xf 0xb2 0x02 0xe0	Get PSU2 CR & off line mode
Out Band	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x0d 0x99	Get PSU1 MFR_ID
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x0d 0x99	Get PSU2 MFR_ID
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x5 0x97	Get PSU1 READ_PIN
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52	Get PSU2 READ_PIN

	0xf 0xb2 0x5 0x97	
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x5 0x7c	Get PSU1 STATUS_INPUT
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x5 0x7c	Get PSU2 STATUS_INPUT
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x0f 0x9a	Get PSU1 MFR_MODEL
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x0f 0x9a	Get PSU2 MFR_MODEL
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x04 0x9b	Get PSU1 MFR_REVISION
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x04 0x9b	Get PSU2 MFR_REVISION
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x06 0x9c	Get PSU1 MFR_LOCATION
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x06 0x9c	Get PSU2 MFR_LOCATION
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x05 0x9d	Get PSU1 MFR_DATE
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x05 0x9d	Get PSU2 MFR_DATE
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x11 0x9e	Get PSU1 MFR_SERIAL
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x11 0x9e	Get PSU2 MFR_SERIAL
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x3 0xa7	Get PSU1 MFR_POUT_MAX
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x3 0xa7	Get PSU2 MFR_POUT_MAX
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb0 0x02 0xe0	Get PSU1 CR & off line mode
	ipmitool -I lan -H <BMC IP> -U <username> -P <password> raw 0x6 0x52 0xf 0xb2 0x02 0xe0	Get PSU2 CR & off line mode

Note:
Use hex to ASCII translator to check PSU information.

```
c:\IpmiTool-1.8.11.i4-win>ipmitool -H 10.10.10.12 -U admin -P admin raw 0x06 0x5
2 0x0f 0xb0 0x0d 0x99
 0c 4c 69 74 65 6f 6e 20 50 6f 77 65 72
```



23. Setting BMC boot flag valid bit clearing

Type	Command Format	Description
In Band	ipmitool raw 0x0 0x8 0x3 0x1f	Cancel 60 seconds timeout
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x8 0x3 0x1f	Cancel 60 seconds timeout

Based on IPMI rule, if the system reset time and system boot time is higher than this default 60 seconds time out.

This boot information and boot flag from “ipmitool chassis bootdev xxx” would be cleared by BMC. then BIOS can’t get this boot information from BMC. Send the command to cancel the 60 seconds timeout.

24. Clear CMOS

Type	Command Format	Description
In Band	ipmitool chassis bootdev none clear-cmos=yes	Clear CMOS
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* chassis bootdev none clear-cmos=yes	Clear CMOS

25. Correctable Memory Error Logging Disabled

Type	Command Format	Description
In Band	ipmitool raw 0x0a 0x44 0x00 0x00 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0x10 **0xa6** 0x6f 0x80 0x00 0xff	Disable Correctable Memory Error Logging

Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0a 0x44 0x00 0x00 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0x10 **0xa6** 0x6f 0x80 0x00 0xff	Disable Correctable Memory Error Logging

26. Collect BMC information

Type	Command Format	Description
In Band	Ipmitool mc info	BMC version
	ipmitool lan print	LAN information
	ipmitool fru	FRU information
	ipmitool sel elist	SEL information
	ipmitool sensor	Sensor information
Out Band	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* mc info	BMC version
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* lan print	LAN information
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* fru	FRU information
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* sel elist	SEL information
	ipmitool -I lan -H *<BMC IP>* -U *<username>* -P *<password>* sensor	Sensor information

27. Get Utilization via ME FW

Type	Command Format	Description
In Band	ipmitool -t 0x2c -b 0x6 raw 0x4 0x2d 0xbe Feedback : 2d c0 c0	Get CPU Utilization
	ipmitool -t 0x2c -b 0x6 raw 0x4 0x2d 0xc0 Feedback : 00 c0 c0	Get DIMM Utilization
	ipmitool -t 0x2c -b 0x6 raw 0x4 0x2d 0xbf Feedback : 00 c0 c0	Get IO utilization
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -t 0x2c -b 0x6 raw 0x4 0x2d 0xbe Feedback : 2d c0 c0	Get CPU Utilization
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -t 0x2c -b 0x6 raw 0x4 0x2d 0xc0 Feedback : 00 c0 c0	Get DIMM Utilization

	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -t 0x2c -b 0x6 raw 0x4 0x2d 0xbf Feedback : 00 c0 c0	Get IO utilization

0xbe is sensor number that stand for core CUPS sensor on ME FW.
0xc0 is sensor number that stand for memory CUPS sensor on ME FW.
0xbf is sensor number that stand for IO CUPS sensor on ME FW.
2d is 0x2d hexadecimal (43 decimal %)
00 is 0x00 hexadecimal (00 decimal %)
c0 is event message enabled and sensor scanning enabled.
c0 is reserved.

28. Get Board ID information from EEPROM

Type	Command Format	Description
In Band	ipmitool raw 0x6 0x52 0x7 0xa8 0x80 0x00 0x00	Get Board ID
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x7 0xa8 0x80 0x00 0x00	Get Board ID

29. Get Expander FW Version

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xf7	Get Expander FW Version
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xf7	Get Expander FW Version

30. Get BIOS Version

Type	Command Format	Description
In Band	ipmitool raw 0x6 0x59 0x0 0x1 0x0 0x0	Get BIOS Version
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x59 0x0 0x1 0x0 0x0	Get BIOS Version

31. Keep PHY LINK-UP

Type	Command Format	Description

In Band	ipmitool raw 0x30 0x91 0x5a 0x0 0x0 0x01	Enable “Keep PHY LINK-UP”
	ipmitool raw 0x30 0x91 0x5a 0x0 0x0 0x00	Disable “Keep PHY LINK-UP”
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5a 0x0 0x0 0x01	Enable “Keep PHY LINK-UP”
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5a 0x0 0x0 0x00	Disable “Keep PHY LINK-UP”

32. Preserve BMC Configurations

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x83 0x00 0x01	Preserve SDR
	ipmitool raw 0x32 0x83 0x02 0x01	Preserve SEL
	ipmitool raw 0x32 0x83 0x03 0x01	Preserve IPMI
	ipmitool raw 0x32 0x83 0x04 0x01	Preserve Network
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x83 0x00 0x01	Preserve SDR
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x83 0x02 0x01	Preserve SEL
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x83 0x03 0x01	Preserve IPMI
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x83 0x04 0x01	Preserve Network

0x32: Netfunction code.
0x83: Command ID code.
0x00: Select ID. (0x00-SDR, 0x02-SEL, 0x03-IPMI, 0x04-Network, 0x06-SNMP, 0x07-SSH, 0x08-KVM, 0x0A-Services)
0x01: Preserved Status. (0x00: Clear Configuration; 0x01: Preserved Configuration)

33. Enable/Disable MB Thermal Trip

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xb0 0x0	Disable MB Thermal Trip
	ipmitool raw 0x30 0xb0 0x1	Enable MB Thermal Trip
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xb0 0x0	Disable MB Thermal Trip

	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xb0 0x1	Enable MB Thermal Trip

34. Get PSU Information

Type	Command Format	Description
In Band	ipmitool raw 0x6 0x52 0xf 0xb0 0x08 0xd5	PSU1 FW (For S2BA)
	ipmitool raw 0x6 0x52 0xf 0xb2 0x08 0xd5	PSU2 FW (For S2BA)
	ipmitool raw 0x30 0xfe 0x0 0x0	PSU 1 manufacturer revision
	ipmitool raw 0x30 0xfe 0x0 0x1	PSU 1 firmware version
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0xf 0xb0 0x08 0xd5	PSU1 FW (For S2BA)
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0xf 0xb2 0x08 0xd5	PSU2 FW (For S2BA)
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xfe 0x0 0x0	PSU 1 manufacturer revision
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xfe 0x0 0x1	PSU 1 firmware version

35. Generated Event Log

Type	Command Format	Description
In Band	ipmitool raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xc 0xe2 0x6f 0xa0 0x48 0x80	CPU1/DIMM F0 ECC event log
	ipmitool raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xc 0xe2 0x6f 0xa0 0x00 0x80	CPU0/DIMM A0 ECC event log
	Ipmitool raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0x28 0xf0 0x6f 0xa3 0x06 0x00	BMC HW watchdog reset event log
	Ipmitool raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xf 0x9e 0x6f 0xa0 0x3 0xa1	Password cleared by jumper event log
	Ipmitool raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xf 0x9e 0x6f 0xa0 0x4 0xa1	Clear CMOS event log
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xc 0xe2 0x6f 0xa0 0x48 0x80	CPU1/DIMM F0 ECC event log
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xc 0xe2 0x6f 0xa0	CPU0/DIMM A0 ECC

	0x00 0x80	event log
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0x28 0xf0 0x6f 0xa3 0x06 0x00	BMC HW watchdog reset event log
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xf 0x9e 0x6f 0xa0 0x3 0xa1	Password cleared by jumper event log
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xa 0x44 0x0 0x0 0x2 0x0 0x0 0x0 0x0 0x01 0x00 0x4 0xf 0x9e 0x6f 0xa0 0x4 0xa1	Clear CMOS event log

36. Get BBU Version

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xfe 0x0 0x02	BBU Version
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xfe 0x0 0x02	BBU Version

37. Get DIMM Temperature

Type	Command Format	Description
In Band	ipmitool -t 0x2c -b 0x6 raw 0x2e 0x40 0x57 0x1 0x0 0x30 0x5 0x5 0xa1 0x0 0xe **0x0** 0x0 Feedback : 57 01 00 40 1c 00 00 00	DIMM channel A
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -t 0x2c -b 0x6 raw 0x2e 0x40 0x57 0x1 0x0 0x30 0x5 0x5 0xa1 0x0 0xe **0x0** 0x0 Feedback : 57 01 00 40 1c 00 00 00	DIMM channel A

0x0: Channel A ; 0x1: Channel B ; 0x2: Channel C ; 0x3: Channel D
0x4: Channel E ; 0x5: Channel F ; 0x6: Channel G ; 0x7: Channel H

38. System Identify LED

Type	Command Format	Description
In Band	Ipmitool sel clear	Clear BMC event log and then fault LED would be off
	ipmitool raw 0x0 0x4 0x00 0x1	Turn on infinitely
	ipmitool raw 0x0 0x4 0x0	Turn off infinitely

	ipmitool raw 0x00 0x04 0xFF	Blinking infinitely
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* sel clear	Clear BMC event log and then fault LED would be off
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x4 0x00 0x1	Turn on infinitely
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x4 0x0	Turn off infinitely
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x00 0x04 0xFF	Blinking infinitely

39. Get MB position

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x7d	MB position
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x7d	MB position

01 (node 1), 02 (node 2), 03 (node 3) , 04 (node 4) or FF (not support)

40. Restore BMC to Default

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x66	Restore BMC
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x66	Restore BMC

This command is used to load the default configurations of the BMC and it'll cause BMC system reset, please wait 70-90 seconds for BMC ready.

41. Get PCH Controller Status

Type	Command Format	Description
In Band	ipmitool raw 0x6 0x52 0x7 0x88 0x1 0x5	Get PCH controller status
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x7 0x88 0x1 0x5	Get PCH controller status

42. Enable BMC Console Dump

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xc0 0x21 0x1	Enable BMC console dump
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xc0 0x21 0x1	Enable BMC console dump

43. Power Capping

Type	Command Format	Description
In Band	ipmitool -b 0x06 -t 0x2C raw 0x2E 0xC0 0x57 0x01 0x00 0x04 0x00 0x01	Disable Policy
	ipmitool -b 0x06 -t 0x2C raw 0x2E 0xC8 0x57 0x01 0x00 0x01 0x00 0x01	Get power consumption and check the CPU frequency
	Ipmitool -b 0x06 -t 0x2C raw 0x2E 0xC1 0x57 0x01 0x00 0x10 0x01 0x10 0x00 0xDC 0x00 0x70 0x17 0x00 0x00 0xDC 0x00 0x58 0x02	Configure Policy
	Ipmitool -b 0x06 -t 0x2C raw 0x2E 0xC5 0x57 0x01 0x00 0x00 0x01 0x00	Configure suspend period
	Ipmitool -b 0x06 -t 0x2C raw 0x2E 0xC0 0x57 0x01 0x00 0x05 0x00 0x01	Enable Policy
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -b 0x06 -t 0x2C raw 0x2E 0xC0 0x57 0x01 0x00 0x04 0x00 0x01	Disable Policy
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -b 0x06 -t 0x2C raw 0x2E 0xC8 0x57 0x01 0x00 0x01 0x00 0x01	Get power consumption and check the CPU frequency
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -b 0x06 -t 0x2C raw 0x2E 0xC1 0x57 0x01 0x00 0x10 0x01 0x10 0x00 0xDC 0x00 0x70 0x17 0x00 0x00 0xDC 0x00 0x58 0x02	Configure Policy
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -b 0x06 -t 0x2C raw 0x2E 0xC5 0x57 0x01 0x00 0x00 0x01 0x00	Configure suspend period
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -b 0x06 -t 0x2C raw 0x2E 0xC0 0x57 0x01 0x00 0x05 0x00 0x01	Enable Policy

Steps:
1. SUT run system stress.
2. Disable Policy (Please refer attached NM spec in detail)
3. Get power consumption and check the CPU frequency
4. Configure Policy (limit, correction time, action...etc)
5. Configure suspend period (no suspend period)
6. Enable Policy
7. Get power consumption and check the CPU frequency

44. Create New User

Type	Command Format	Description
In Band	ipmitool user set name 5 test	
	ipmitool user set password 5 test	
	Ipmitool user enable 5	
	Ipmitool user priv 5 4 1	
	Ipmitool channel setaccess 1 5 callin=on ipmi=on link=off privilege=4	
	Ipmitool user list 1	
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* user set name 5 test	
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* user set password 5 testfa	
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* user enable 5	
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* user priv 5 4 1	
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* channel setaccess 1 5 callin=on ipmi=on link=off privilege=4	
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* user list 1	

45. Delete IPMI user

Type	Command Format	Description
In Band	ipmitool raw 0x6 0x45 0x3 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff	Delete IPMI user
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x45 0x3 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff	Delete IPMI user

0x6 0x45 : netfunction and set user name command id
0x3 : user id
0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff : remove ipmi user

46. Get Fan Reading

Type	Command Format	Description
In Band	ipmitool raw 0x4 0x2d 0x1 Feedback : 1a c0 c0 00	Get Fan Reading

Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x4 0x2d 0x1	Get Fan Reading

byte 1: 1ah = 26 * (M=100) = 2600RPM
byte 2-4: Don't care

47. Get Chassis Status

Type	Command Format	Description
In Band	ipmitool raw 0x0 0x1	Get Chassis Status
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x0 0x1	Get Chassis Status

response byte 1: completion code, byte 2: current power state, byte 3: last power event, byte 4: Misc. Chassis Status

[5:4]
00b = ID LED Off
01b = ID LED Blinking
10b = ID LED Indefinite On

48. Update PD Asset tag on MB FRU

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x91 0x5d 0x6 0x30 0x30 0x30 0x30 0x30 0x30	Update PD Asset Tag
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5d 0x6 0x30 0x30 0x30 0x30 0x30 0x30	Update PD Asset Tag

49. Set HDD

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x91 0x5e 0x0 0x6 0x52 0x53 0x54 0x55 0x56 0x57	Set HDD model string
	ipmitool raw 0x30 0x91 0x5e 0x1 0x18	Set HDD account
	Ipmitool raw 0x30 0x91 0x5e 0x2 0x6 0x60 0x61 0x62 0x63 0x64 0x65	Set HDD vendor string
	Ipmitool raw 0x30 0x91 0x5e 0x3 0x7d 0x02 0x00 0x0	Set HDD capacity
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5e 0x0 0x6 0x52 0x53 0x54 0x55 0x56 0x57	Set HDD model string
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5e 0x1 0x18	Set HDD account

	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5e 0x2 0x6 0x60 0x61 0x62 0x63 0x64 0x65	Set HDD vendor string
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5e 0x3 0x7d 0x02 0x00 0x0	Set HDD capacity

50. Update Critical & non-Critical threshold value of outlet temp.

Type	Command Format	Description
In Band	ipmitool raw 0x4 0x26 0x21 0x18 0x0 0x0 0x0 0x30 0x32 0x0	
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x4 0x26 0x21 0x18 0x0 0x0 0x0 0x30 0x32 0x0	

51. Create one PEF Configuration

Type	Command Format	Description
In Band	ipmitool raw 0x4 0x12 0x6 0x01 0x80 0x01 0x01 0x00 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0x00 0x00 0x00 0x0 0x0 0x0 0x0 0x0 0x0	Create an event filter entry on event filter table with all sensor and event logs
	ipmitool raw 0x4 0x12 0x9 0x01 0x18 0x11 0x00	Create an alert policy entry on alert policy table
	Ipmitool raw 0xc 0x1 0x1 0x12 0x1 0x0 0x3 0x3	Create an destination on Destination
	Ipmitool raw 0xc 0x1 0x1 0x13 0x1 0x0 0x0 0xa 0xa 0xc8 0x9c 0x0 0x0 0x0 0x0 0x0 0x0	Create an destination on Destination addresses
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x4 0x12 0x6 0x01 0x80 0x01 0x01 0x00 0xff 0xff 0xff 0xff 0xff 0xff 0xff 0x00 0x00 0x00 0x0 0x0 0x0 0x0 0x0 0x0	Create an event filter entry on event filter table with all sensor and event logs
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x4 0x12 0x9 0x01 0x18 0x11 0x00	Create an alert policy entry on alert policy table
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xc 0x1 0x1 0x12 0x1 0x0 0x3 0x3	Create an destination on Destination
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xc 0x1 0x1 0x13 0x1 0x0 0x0 0xa 0xa 0xc8 0x9c 0x0 0x0 0x0 0x0 0x0 0x0	Create an destination on Destination

		addresses

52. Get Volumetric Airflow from ME

Type	Command Format	Description
In Band	ipmitool -t 0x2c -b 0x6 raw 0x4 0x2d 0xa2 Feedback : 2b 40 c0	
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -t 0x2c -b 0x6 raw 0x4 0x2d 0xa2 Feedback : 2b 40 c0	

0x2b: Volumetric Airflow
0x40: Reading is available.
0xc0: Asserted status.

53. System Fault LED

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xe0 0xB 0x1 0x00 # Status LED pin: GPIOB3 is 11 (0xBh)	LED on
	ipmitool raw 0x30 0xe0 0xB 0x1 0x01 # Status LED pin: GPIOB3 is 11 (0xBh)	LED off
	ipmitool event 1	Generate a dummy event log. then fault LED will be on
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xe0 0xB 0x1 0x00	LED on
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xe0 0xB 0x1 0x01	LED off
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* event 1	Generate a dummy event log. then fault LED will be on

54. Check Signal Status

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xe1 0x1a	Get/Check the signal

	# Power Button: GPIOD2 is 26 (26 = 0x1ah) Feedback : 00 01	status of button
	ipmitool raw 0x30 0xe1 0x92 #PSU_AC_LOSS: GPIOS2 is 146 (146 = 0x92h) Feedback : 00 00	Get/Check the signal status of PSU AC LOSS
	ipmitool raw 0x30 0xe1 0x88 ipmitool raw 0x30 0xe1 0x89 # SLOT ID 0: GPIOR0 is 136 (136 = 0x88h) # SLOT ID 1: GPIOR1 is 137 (137 = 0x89h) Feedback : 00 01	Get/Check the signal status of node number on chassis
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xe1 0x1a	Get/Check the signal status of button
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xe1 0x92	Get/Check the signal status of PSU AC LOSS
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xe1 0x88 ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xe1 0x89	Get/Check the signal status of node number on chassis

1st byte GPIO direction:
00 is input; 01 is output
2nd byte GPIO data:
01 is high (button is not been pressed) ; 00 is low (button is been pressed)

55. Get VR Data

Type	Command Format	Description
In Band	ipmitool raw 0x30 0xfb 0x88	
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xfb 0x88	

Byte 1-2: CPU0 major number
Byte 3-4: CPU1 major number
Byte 5-6: DIMM AB channel major number
Byte 7-8: DIMM CD channel major number
Byte 9-10: DIMM EF channel major number
Byte 11-12: DIMM GH channel major number
Byte 13-14: CPU0 minor number
Byte 15-16: CPU1 minor number
Byte 17-18: DIMM AB channel minor number
Byte 19-20: DIMM CD channel minor number

Byte 21-22: DIMM EF channel minor number
Byte 23-24: DIMM GH channel minor number

56. Set Host Name

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x6c 0x1 0x0 0x00 0x5 0x30 0x31 0x32 0x33 0x34 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00	Set host name configuration by **manual mode** (host name is 01234)
	ipmitool raw 0x32 0x6c 0x1 0x0 0x01 0x5 0x30 0x31 0x32 0x33 0x34 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00	Set host name configuration by **Auto mode** (host name is 01234)
	ipmitool raw 0x32 0x6c 0x2 0x0 0x0 0x0 0x11 0x32 0x6c 0x2 0x0 => net-function, command id, parameter selector, block selector. 0x00 => for eth0 interface. (inactive) 0x00 => for eth1 interface.(inactive) 0x11 => for eth1 interface. (active) bit[0], 1: register DNS setting; 0: deregister DNS setting. bit[4], 1: DHCP FQDN method; 0: NSUPDATE method.	Enable Register DNS
	ipmitool raw 0x32 0x6c 0x7 0x0	DNS configuration restart
	ipmitool raw 0x32 0x6b 0x01 0x00 Return: byte 1: 01h-automatic; 00h-Manual mode byte 2: host name length byte 3-66: host name string with ASCI code.	Get host name
Out Band	ipmitool -I lanplus -H <*BMC IP*> -U <*username*> -P <*password*> raw 0x32 0x6c 0x1 0x0 0x00 0x5 0x30 0x31 0x32 0x33 0x34 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00	Set host name configuration by **manual mode** (host name is 01234)
	ipmitool -I lanplus -H <*BMC IP*> -U <*username*> -P <*password*> raw 0x32 0x6c 0x1 0x0 0x01 0x5 0x30 0x31 0x32 0x33 0x34 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00	Set host name configuration by **Auto mode** (host name is 01234)
	ipmitool -I lanplus -H <*BMC IP*> -U <*username*> -P <*password*> raw 0x32 0x6c 0x2 0x0 0x0 0x0 0x11	Enable Register DNS

	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6c 0x7 0x0	DNS configuration restart
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6b 0x01 0x00	Get host name

57. Enable/Disable CD Server

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x6a 0x4 0x00 0x0 0x0 0x0 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x00 0x14 0x0 0x0 0x04 0x14 0x0 0x0 0x0 0x0 0x0 0x00 0x00 0x00 0x00 0x00	Disable CD server
	ipmitool raw 0x32 0x6a 0x4 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x00 0x14 0x0 0x0 0x04 0x14 0x0 0x0 0x0 0x0 0x0 0x00 0x00 0x00 0x00 0x00	Enable CD server
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x4 0x00 0x0 0x0 0x0 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x00 0x14 0x0 0x0 0x04 0x14 0x0 0x0 0x0 0x0 0x0 0x00 0x00 0x00 0x00 0x00	Disable CD server
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x4 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x00 0x14 0x0 0x0 0x04 0x14 0x0 0x0 0x0 0x0 0x0 0x00 0x00 0x00 0x00 0x00	Enable CD server

58. SNMP Configuration by root user

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x7d 0x72 0x6f 0x6f 0x74 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38 0x39 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0	Set SNMP configuration
	ipmitool raw 0x32 0x7c 0x00 0x72 0x6f 0x6f 0x74 0x0 72 6f 6f 74 00 bf 4c 1c 00 42 32 00 00 00 00 55 00 00 00 00	Get SNMP configuration
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x7d 0x72 0x6f 0x6f 0x74 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38 0x39 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0	Set SNMP configuration
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x7c 0x00 0x72 0x6f 0x6f 0x74 0x0 72 6f 6f 74 00 bf 4c 1c 00 42 32 00 00 00 00 55 00 00 00 00	Get SNMP configuration

59. Set Altitude to 1000 meters (0x3E8)

Type	Command Format	Description
In Band	ipmitool -b 0x06 -t 0x2c raw 0x2E 0xD5 0x57 0x01 0x00 0x00 0xE8 0x03	
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* -b 0x06 -t 0x2c raw 0x2E 0xD5 0x57 0x01 0x00 0x00 0xE8 0x03	

Byte 1:2 – Net-function and command id.
Byte 3:5 - Intel Manufacturer ID : 000157h, LS byte first.
Byte 6 - Domain ID
[0:3] - Domain ID = 00h - Entire platform ; Others - Reserved.
[4:7] - Reserved. Write as 0000b
Byte 7:8 Altitude level - signed integer value expressed in meters above sea level. [masl]

60. Set Drive information for MG9094

Type	Command Format	Description
In Band	ipmitool raw 0x6 0x52 0x1 0xc0 0x00 0x42 0x01	Enable locate LED on HDD1
	ipmitool raw 0x6 0x52 0x1 0xc0 0x00 0x42 0x02	Enable locate LED on HDD2
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x01	Enable locate LED on HDD3
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x02	Enable locate LED on HDD4
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x04	Enable locate LED on HDD5
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x08	Enable locate LED on HDD6
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x10	Enable locate LED on HDD7
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x20	Enable locate LED on HDD8
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x40	Enable locate LED on HDD9
	ipmitool raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x80	Enable locate LED on HDD10
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc0 0x00 0x42 0x01	Enable locate LED on HDD1
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc0 0x00 0x42 0x02	Enable locate LED on HDD2
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x01	Enable locate LED on HDD3
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6	Enable locate LED on

	0x52 0x1 0xc2 0x00 0x42 0x02	HDD4
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x04	Enable locate LED on HDD5
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x08	Enable locate LED on HDD6
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x10	Enable locate LED on HDD7
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x20	Enable locate LED on HDD8
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x40	Enable locate LED on HDD9
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x6 0x52 0x1 0xc2 0x00 0x42 0x80	Enable locate LED on HDD10

61. Fan Command (1U)

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x39 0x01 0x10x0 0x3f	Set BP fan 0 to 63 duties (=0x3fheximal; maximum duty is 63)
	ipmitool raw 0x30 0x39 0x01 0x10x1 0x3f	Set BP fan 1 to 63 duties
	ipmitool raw 0x30 0x39 0x01 0x10x2 0x3f	Set BP fan 2 to 63 duties
	ipmitool raw 0x30 0x39 0x01 0x10x3 0x3f	Set BP fan 3 to 63 duties
	ipmitool raw 0x30 0x39 0x01 0x10x4 0x3f	Set BP fan 4 to 63 duties
	ipmitool raw 0x30 0x39 0x01 0x10x5 0x3f	Set BP fan 5 to 63 duties

62. Fan Command (2U)

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x39 0x01 0x0 0x0 0x64	Set MB fan 0 to 100 duties (=0x64heximal; maximum duty is 100)

	ipmitool raw 0x30 0x39 0x01 0x0 0x1 0x64	Set MB fan 1 to 100 duties
	ipmitool raw 0x30 0x39 0x01 0x0 0x2 0x64	Set MB fan 2 to 100 duties
	ipmitool raw 0x30 0x39 0x01 0x0 0x3 0x64	Set MB fan 3 to 100 duties

63. Sensor Thresh

Type	Command Format	Description
In Band	ipmitool sensor thresh <id> <threshold> <setting> Valid thresholds are: unr Upper Non-Recoverable ucr Upper Critical unc Upper Non-Critical lnc Lower Non-Critical lcr Lower Critical lnr Lower Non-Recoverable	This allows you to set a particular sensor threshold value. The sensor is specified by name.
	ipmitool sensor thresh <id> lower <lnr> <lcr> <lnc> Ex: ipmitool sensor thresh FAN1 lower 100 150 200	This allows you to set all lower thresholds for a sensor at the same time. The sensor is specified by name and the thresholds are listed in order of Lower Non-Recoverable, Lower Critical, and Lower Non-Critical.
	ipmitool sensor thresh <id> upper <unc> <ucr> <unr>	This allows you to set all upper thresholds for a sensor at the same time. The sensor is specified by name and the thresholds are listed in order of Upper Non-Critical, Upper Critical, and Upper Non-Recoverable.

64. Enable BMC debug message for Fan Control

Type	Command Format	Description

In Band	ipmitool raw 0x30 0x91 0x5a 0x1 0x0 0x0	
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x91 0x5a 0x1 0x0 0x0	

65. Get CMC version and PSU POUTMAX

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x34	
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x34	

Response:
Byte 1 – Completion Code
Byte 2..4 – PCB Firmware Revision
Byte 5 – TOB PSU Type
Byte 6 – Bottom PSU Type (it has been deprecated in this command)
PSU type:
0x00: Unknow
0x01: 1023W
0x02: 1100W
0x03: 1200W
0x04: 1400W
0x05: 1600W
0x06: 1000W
Byte 7:8 TOP PSU Maximum reading (POUT Max.), LS byte first
Byte 9:10 Bottom PSU Maximum reading (POUT Max.), LS byte first

66. NCSI Failed Over

Type	Command Format	Description
In Band	ipmitool raw 0xc 0x2 0x1 0xfc 0x0 0x0	Get the status of NCSI failed over
	ipmitool raw 0xc 0x1 0x1 0xfc	Enabled or Disabled the feature
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xc 0x2 0x1 0xfc 0x0 0x0	Get the status of NCSI failed over
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0xc 0x1 0x1 0xfc	Enabled or Disabled the feature

00h – Disable.
(Noted: if this setting is disable, the Shared-NIC of BMC would be always enabled on first on NIC port)
01h – Enable.

67. Change Device Port

Type	Command Format	Description
In Band	ipmitool raw 0x32 0x6a 0x2 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x9b 0x1d 0x0 0x0 0x9f 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed KVM port
	ipmitool raw 0x32 0x6a 0x4 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x9b 0x1d 0x0 0x0 0x9f 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed CD device port
	ipmitool raw 0x32 0x6a 0x8 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x88 0x1d 0x0 0x0 0x89 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed FD device port changed FD device port
	Ipmitool raw 0x32 0x6a 0x10 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x77 0x1d 0x0 0x0 0x79 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed HDD device port
	ipmitool raw 0x32 0x6a 0x2 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x9a 0x1d 0x0 0x0 0x9e 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00 0x2 0x00 0x0 0x0: KVM service 0x01: Service is enabled 0x62 0x6f 0x6e 0x64 0x30 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00: the string is “bond0” 0x9a 0x1d 0x00 0x00: Non security access port is 7578 0x9e 0x1d 0x00 0x00: Security access port is 7582 ff ff ff ff: Session inactivity timeout value is read-only. 0x00 0x00 0x00: Rerseved.	Setting KVM Port Number
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x2 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x9b 0x1d 0x0 0x0 0x9f 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed KVM port
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x4 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x9b 0x1d 0x0 0x0 0x9f 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed CD device port
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x8 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x88 0x1d 0x0 0x0 0x89 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed FD device port
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x10 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x77 0x1d 0x0 0x0 0x79 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	changed HDD device port
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x32 0x6a 0x2 0x00 0x0 0x0 0x1 0x62 0x6f 0x6e 0x64 0x30 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x9a 0x1d 0x0 0x0 0x9e 0x1d 0x0 0x0 0xff 0xff 0xff 0xff 0x00 0x00 0x00	Setting KVM Port Number

68. SNMP Configuration

Type	Command Format	Description
In Band	ipmitool raw 0x30 0x89 0x0	Get Public
	ipmitool raw 0x30 0x89 0x1	Get private
	ipmitool raw 0x30 0x8a 0x10 0x4a 0x44 0x52 0x45 0x41 0x44	Set public community string to "JDREAD"
	ipmitool raw 0x30 0x8a 0x11 0x4a 0x4a 0x57 0x52 0x49 0x54 0x45	Set public community string to "JJWRITE" with ASCII code
	ipmitool raw 0x30 0x8c 0x1 0x1 0x4a 0x4a 0x54 0x52 0x41 0x50 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x31 0x30 0x2e 0x31 0x30 0x2e 0x31 0x32 0x2e 0x31 0x31 0x37 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 * Trap status: enabled * Trap version: v1 * Trap community: JJTRAP * Destination first IP: 10.10.12.117	SNMP trap configuration
	ipmitool raw 0x30 0x8c 0x1 0x1 0x4a 0x4a 0x54 0x52 0x41 0x50 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x1 0x31 0x30 0x2e 0x31 0x30 0x2e 0x31 0x32 0x2e 0x31 0x31 0x38 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 * Trap status: enabled * Trap version: v1 * Trap community: JJTRAP * Destination second IP: 10.10.12.118	SNMP trap configuration
	ipmitool raw 0x30 0xfc	Test to send a SNMP trap
Out Band	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x89 0x0	Get Public
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x89 0x1	Get private
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x8a 0x10 0x4a 0x44 0x52 0x45 0x41 0x44	Set public community string to "JDREAD"
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x8a 0x11 0x4a 0x4a 0x57 0x52 0x49 0x54 0x45	Set public community string to "JJWRITE" with ASCII code
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x8c 0x1 0x1 0x4a 0x4a 0x54 0x52 0x41 0x50 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x31 0x30 0x2e 0x31 0x30 0x2e 0x31 0x32 0x2e 0x31 0x31 0x37 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0	SNMP trap configuration

	0x0 0x0 0x0 * Trap status: enabled * Trap version: v1 * Trap community: JJTRAP * Destination first IP: 10.10.12.117	
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0x8c 0x1 0x1 0x4a 0x4a 0x54 0x52 0x41 0x50 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x1 0x31 0x30 0x2e 0x31 0x30 0x2e 0x31 0x32 0x2e 0x31 0x31 0x38 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 * Trap status: enabled * Trap version: v1 * Trap community: JJTRAP * Destination second IP: 10.10.12.118	SNMP trap configuration
	ipmitool -I lanplus -H *<BMC IP>* -U *<username>* -P *<password>* raw 0x30 0xfc	Test to send a SNMP trap

About QCT

QCT (Quanta Cloud Technology) is a global datacenter solution provider extending the power of hyperscale datacenter design in standard and open SKUs to all datacenter customers.

Product lines include servers, storage, network switches, integrated rack systems and cloud solutions, all delivering hyperscale efficiency, scalability, reliability, manageability, serviceability and optimized performance for each workload.

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The parent of QCT is Quanta Computer Inc., a Fortune Global 500 technology engineering and manufacturing company.

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